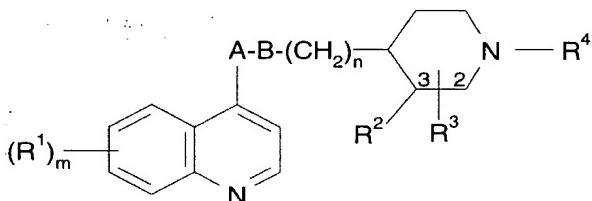


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

17. (Currently Amended) A method of treatment of bacterial infections in mammals, particularly in man, which method comprises the administration to a mammal in need of such treatment of an effective amount of a quinoline of formula (I) or a pharmaceutically acceptable derivative thereof:



wherein:

m is 1 or 2;

each R¹ is independently hydroxy; (C₁-6) alkoxy optionally substituted by (C₁-6)alkoxy, amino, piperidyl, guanidino or amidino optionally N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups, NH₂CO, hydroxy, thiol, (C₁-6)alkylthio, heterocyclithio, heterocycloloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₁-6)alkoxy-substituted (C₁-6)alkyl; halogen; (C₁-6)alkyl; (C₁-6)alkylthio; nitro; azido; acyl; acyloxy; acylthio; (C₁-6)alkylsulphonyl; (C₁-6)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups;

either R² is hydrogen; and

R³ is in the 2- or 3-position and is hydrogen or (C₁-6)alkyl or (C₂-6)alkenyl optionally substituted with 1 to 3 groups selected from:

thiol; halogen; (C₁-6)alkylthio; trifluoromethyl; azido; (C₁-6)alkoxycarbonyl; (C₁-6)alkylcarbonyl; (C₂-6)alkenyloxycarbonyl; (C₂-6)alkenylcarbonyl; hydroxy optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylcarbonyl or (C₂-

6) alkenylcarbonyl; amino optionally mono- or disubstituted by (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl, (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylsulphonyl, (C₂-6)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₂-6)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl or (C₂-6)alkenylcarbonyl and optionally further substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl or (C₂-6)alkenyl; oxo; (C₁-6)alkylsulphonyl; (C₂-6)alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₂-6)alkenyl; or

R³ is in the 3-position and R² and R³ together are a divalent residue =CR⁵¹R⁶¹ where R⁵¹ and R⁶¹ are independently selected from H, (C₁-6)alkyl, (C₂-6)alkenyl, aryl(C₁-6)alkyl and aryl(C₂-6)alkenyl, any alkyl or alkenyl moiety being optionally substituted by 1 to 3 groups selected from those listed above for substituents on R³;

R⁴ is a group -CH₂-R⁵ in which R⁵ is selected from:

(C₃-12)alkyl; hydroxy(C₃-12)alkyl; (C₁-12)alkoxy(C₃-12)alkyl; (C₁-12)alkanoyloxy(C₃-12)alkyl; (C₃-6)cycloalkyl(C₃-12)alkyl; hydroxy-, (C₁-12)alkoxy- or (C₁-12)alkanoyloxy-(C₃-6)cycloalkyl(C₃-12)alkyl; cyano(C₃-12)alkyl; (C₂-12)alkenyl; (C₂-12)alkynyl; tetrahydrofuryl; mono- or di-(C₁-12)alkylamino(C₃-12)alkyl; acylamino(C₃-12)alkyl; (C₁-12)alkyl- or acyl-aminocarbonyl(C₃-12)alkyl; mono- or di- (C₁-12)alkylamino(hydroxy) (C₃-12)alkyl; optionally substituted phenyl(C₁-2)alkyl, phenoxy(C₁-2)alkyl or phenyl(hydroxy)(C₁-2)alkyl; optionally substituted diphenyl(C₁-2)alkyl; optionally substituted phenyl(C₂-3)alkenyl; optionally substituted benzoyl or benzoylmethyl; optionally substituted heteroaryl(C₁-2)alkyl; and optionally substituted heteroaroyl or heteroaroylmethyl;

or R⁴ is 3-benzoylpropyl or 3-(4-fluorobenzoyl)propyl;

n is 0, 1 or 2;

A is NR¹¹, O, S(O)_x or CR⁶R⁷ and B is NR¹¹, O, S(O)_x or CR⁸R⁹ where x is 0, 1 or 2 and wherein A is CR⁶R⁷ and B is CR⁸R⁹ and wherein:

each of R⁶ and R⁷, R⁸ and R⁹ R⁶, R⁷, R⁸ and R⁹ is independently selected from:

H; thiol; (C₁-6)alkylthio; halo; trifluoromethyl; azido; (C₁-6)alkyl; (C₂-6)alkenyl; (C₁-6)alkoxycarbonyl; (C₁-6)alkylcarbonyl; (C₂-6)alkenyloxycarbonyl; (C₂-6)alkenylcarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for corresponding substituents in R³; (C₁-6)alkylsulphonyl; (C₂-6)alkenylsulphonyl; or (C₁-6)aminosulphonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₁-6)alkenyl;

or R⁶ and R⁸ together represent a bond and R⁷ and R⁹ are as above defined;

or R⁶ and R⁸ together represent -O- and R⁷ and R⁹ are both hydrogen;
or R⁶ and R⁷ or R⁸ and R⁹ together represent oxo;
and each R¹¹ is independently H, trifluoromethyl, (C₁₋₆)alkyl, (C₁₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₁₋₆)alkenylloxycarbonyl, (C₂₋₆)alkenylcarbonyl, (C₁₋₆)alkyl or (C₁₋₆)alkenyl and optionally further substituted by (C₁₋₆)alkyl or (C₁₋₆)alkenyl;

provided that A and B cannot both be selected from NR¹¹, O and S(O)_x and when one of A and B is CO the other is not CO, O or S(O)_x.

; wherein:

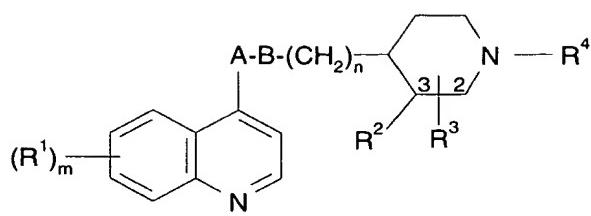
'heterocyclic' as used herein is an aromatic or non-aromatic, single or fused, ring containing up to four hetero-atoms in each ring selected from oxygen, nitrogen and sulphur, and having from 4 to 7 ring atoms which rings may be unsubstituted or substituted by up to three groups selected from amino, halogen, (C₁₋₆)alkyl, (C₁₋₆)alkoxy; halo(C₁₋₆)alkyl, hydroxy, carboxy, carboxy salts, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkoxycarbonyl(C₁₋₆)alkyl, aryl, and oxo groups, and wherein any amino group forming part of a single or fused non-aromatic heterocyclic ring as defined is optionally substituted by (C₁₋₆)alkyl optionally substituted by hydroxy, C₁₋₆alkoxy, thiol, C₁₋₆alkylthio, halo, trifluoromethyl, acyl or (C₁₋₆)alkylsulphonyl;

'heteroaryl' is an aromatic heterocyclic group referred to above;

'aryl' is phenyl or naphthyl, each optionally substituted with up to five groups selected from halogen, mercapto, (C₁₋₆)alkyl, phenyl, (C₁₋₆)alkoxy, hydroxy(C₁₋₆)alkyl, mercapto (C₁₋₆)alkyl, halo(C₁₋₆)alkyl, hydroxy, amino, nitro, carboxy, (C₁₋₆)alkylcarbonyloxy, (C₁₋₆)alkoxycarbonyl, formyl, and (C₁₋₆)alkylcarbonyl groups; and

'acyl' is an (C₁₋₆)alkoxycarbonyl, formyl or (C₁₋₆) alkylcarbonyl group; and wherein the pharmaceutically acceptable derivative is an acid addition salt, quaternary ammonium salt, or N-oxide.

18. (Withdrawn and Currently amended) A compound of formula (IA) which is a compound of formula (I) wherein R³ is hydroxy(C₁₋₆)alkyl or 1,2-dihydroxy(C₂₋₆)alkyl optionally substituted on the hydroxy group(s) of formula (I) or a pharmaceutically acceptable derivative thereof:



(I)

wherein:

m is 1 or 2;

each R¹ is independently hydroxy; (C₁₋₆)alkoxy optionally substituted by (C₁₋₆)alkoxy, amino, piperidyl, guanidino or amidino optionally N-substituted by one or two (C₁₋₆)alkyl, acyl or (C₁₋₆)alkylsulphonyl groups, NH₂CO, hydroxy, thiol, (C₁₋₆)alkylthio, heterocyclithio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁₋₆)alkylsulphonyloxy; (C₁₋₆)alkoxy-substituted (C₁₋₆)alkyl; halogen; (C₁₋₆)alkyl; (C₁₋₆)alkylthio; nitro; azido; acyl; acyloxy; acylthio; (C₁₋₆)alkylsulphonyl; (C₁₋₆)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C₁₋₆)alkyl, acyl or (C₁₋₆)alkylsulphonyl groups;

R² is hydrogen;

R³ is hydroxy(C₁₋₆)alkyl or 1,2-dihydroxy(C₂₋₆)alkyl optionally substituted on the hydroxy group(s);

R⁴ is a group -CH₂-R⁵ in which R⁵ is selected from:

(C₃₋₁₂)alkyl; hydroxy(C₃₋₁₂)alkyl; (C₁₋₁₂)alkoxy(C₃₋₁₂)alkyl; (C₁₋₁₂)alkanoyloxy(C₃₋₁₂)alkyl; (C₃₋₆)cycloalkyl(C₃₋₁₂)alkyl; hydroxy-, (C₁₋₁₂)alkoxy- or (C₁₋₁₂)alkanoyloxy-(C₃₋₆)cycloalkyl(C₃₋₁₂)alkyl; cyano(C₃₋₁₂)alkyl; (C₂₋₁₂)alkenyl; (C₂₋₁₂)alkynyl; tetrahydrofuryl; mono- or di-(C₁₋₁₂)alkylamino(C₃₋₁₂)alkyl; acylamino(C₃₋₁₂)alkyl; (C₁₋₁₂)alkyl- or acyl-aminocarbonyl(C₃₋₁₂)alkyl; mono- or di-(C₁₋₁₂)alkylamino(hydroxy) (C₃₋₁₂)alkyl; optionally substituted phenyl(C₁₋₂)alkyl, phenoxy(C₁₋₂)alkyl or phenyl(hydroxy)(C₁₋₂)alkyl; optionally substituted diphenyl(C₁₋₂)alkyl; optionally substituted phenyl(C₂₋₃)alkenyl; optionally substituted benzoyl or benzoylmethyl; optionally substituted heteroaryl(C₁₋₂)alkyl; and optionally substituted heteroaroyl or heteroaroylmethyl;

or R⁴ is 3-benzoylpropyl or 3-(4-fluorobenzoyl)propyl;

n is 0, 1 or 2;

A is CR⁶R⁷ and B is CR⁸R⁹ and wherein:

R⁶, R⁷, R⁸ and R⁹ are independently selected from: H; thiol; (C₁₋₆)alkylthio; halo; trifluoromethyl; azido; (C₁₋₆)alkyl; (C₂₋₆)alkenyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylsulphonyl; (C₁₋₆)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C₁₋₆)alkyl, acyl or (C₁₋₆)alkylsulphonyl groups;

6) alkylcarbonyl; (C₂-6)alkenyloxycarbonyl; (C₂-6)alkenylcarbonyl; hydroxyl optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylcarbonyl or (C₂-6)alkenylcarbonyl; amino optionally mono- or disubstituted by (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl, (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylsulphonyl, (C₂-6)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₂-6)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl or (C₂-6)alkenylcarbonyl and optionally further substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl or (C₂-6)alkenyl; (C₁-6)alkylsulphonyl; (C₂-6)alkenylsulphonyl; or (C₁-6)aminosulphonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₁-6)alkenyl;

or R⁶ and R⁸ together represent a bond and R⁷ and R⁹ are as above defined;

or R⁶ and R⁸ together represent -O- and R⁷ and R⁹ are both hydrogen;

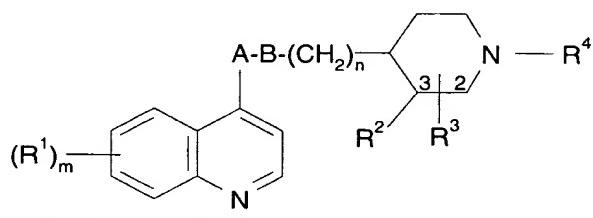
or R⁶ and R⁷ or R⁸ and R⁹ together represent oxo;

provided that when one of A and B is CO the other is not CO;

and wherein the pharmaceutically acceptable derivative is an acid addition salt,

quaternary ammonium salt, or N-oxide.

19. (Withdrawn and Currently amended) A compound of formula (IB) which is a compound of formula (I) wherein at least one R¹ is (C₂-6)alkoxy substituted by optionally N-substituted amino, guanidino or amidino or C₁-6-alkoxy substituted by piperidyl, A is CH₂, CHO_H, CH(NH₃), C(Me)(OH) or CH(Me) and B is CH₂, CHO_H or CO of formula (I) or a pharmaceutically acceptable derivative thereof:



(I)

wherein:

m is 1 or 2;

at least one R¹ is (C₂-6) alkoxy substituted by optionally N-substituted amino, guanidino or amidino or (C₁-6) alkoxy substituted by piperidyl, and

each other R¹ is independently hydroxy; (C₁-6) alkoxy optionally substituted by (C₁-6)alkoxy, amino, piperidyl, quanidino or amidino optionally N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups, NH₂CO, hydroxy, thiol, (C₁-6)alkylthio, heterocyclithio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₁-6)alkoxy-substituted (C₁-6)alkyl; halogen; (C₁-6)alkyl; (C₁-6)alkylthio; nitro; azido; acyl; acyloxy; acylthio; (C₁-6)alkylsulphonyl; (C₁-6)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups;

either R² is hydrogen; and

R³ is in the 2- or 3-position and is hydrogen or (C₁-6)alkyl or (C₂-6)alkenyl optionally substituted with 1 to 3 groups selected from:

thiol; halogen; (C₁-6)alkylthio; trifluoromethyl; azido; (C₁-6)alkoxycarbonyl; (C₁-6)alkylcarbonyl; (C₂-6)alkenyloxycarbonyl; (C₂-6)alkenylcarbonyl; hydroxy optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylcarbonyl or (C₂-6)alkenylcarbonyl; amino optionally mono- or disubstituted by (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl, (C₂-6)alkenylcarbonyl, (C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkylsulphonyl, (C₂-6)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₂-6)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl, (C₂-6)alkenyl, (C₁-6)alkoxycarbonyl, (C₁-6)alkylcarbonyl, (C₂-6)alkenyloxycarbonyl or (C₂-6)alkenylcarbonyl and optionally further substituted by (C₁-6)alkyl, hydroxy(C₁-6)alkyl, aminocarbonyl(C₁-6)alkyl or (C₂-6)alkenyl; oxo; (C₁-6)alkylsulphonyl; (C₂-6)alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally substituted by (C₁-6)alkyl or (C₂-6)alkenyl; or

R³ is in the 3-position and R² and R³ together are a divalent residue =CR⁵¹R⁶¹ where R⁵¹ and R⁶¹ are independently selected from H, (C₁-6)alkyl, (C₂-6)alkenyl, aryl(C₁-6)alkyl and aryl(C₂-6)alkenyl, any alkyl or alkenyl moiety being optionally substituted by 1 to 3 groups selected from those listed above for substituents on R³;

R⁴ is a group -CH₂-R⁵ in which R⁵ is selected from:

(C₃-12)alkyl; hydroxy(C₃-12)alkyl; (C₁-12)alkoxy(C₃-12)alkyl; (C₁-12)alkanoyloxy(C₃-12)alkyl; (C₃-6)cycloalkyl(C₃-12)alkyl; hydroxy-, (C₁-12)alkoxy- or

(C₁-12)alkanoyloxy-(C₃-6)cycloalkyl(C₃-12)alkyl; cyano(C₃-12)alkyl; (C₂-12)alkynyl; tetrahydrofuryl; mono- or di-(C₁-12)alkylamino(C₃-12)alkyl; acylamino(C₃-12)alkyl; (C₁-12)alkyl- or acyl-aminocarbonyl(C₃-12)alkyl; mono- or di-(C₁-12)alkylamino(hydroxy) (C₃-12)alkyl; optionally substituted phenyl(C₁-2)alkyl, phenoxy(C₁-2)alkyl or phenyl(hydroxy)(C₁-2)alkyl; optionally substituted diphenyl(C₁-2)alkyl; optionally substituted phenyl(C₂-3)alkenyl; optionally substituted benzoyl or benzoylmethyl; optionally substituted heteroaryl(C₁-2)alkyl; and optionally substituted heteroaroyl or heteroaroylmethyl;

or R⁴ is 3-benzoylpropyl or 3-(4-fluorobenzoyl)propyl;

n is 0, 1 or 2;

A is CH₂, CHOH, CH(NH₂), C(Me)(OH) or CH(Me); and

B is CH₂, CHOH or CO;

and wherein the pharmaceutically acceptable derivative is an acid addition salt, quaternary ammonium salt, or N-oxide.

20. (Original) A method according to claim 17 wherein R¹ is in the 6-position on the quinoline nucleus and is methoxy, amino(C₃-5)alkyloxy, nitro or fluoro and m is 1.

21. (Currently Amended) A method according to claim 17 or 20 wherein R³ is (C₁-6) alkyl, (C₁-6) alkenyl, or optionally substituted 1-hydroxy-(C₁-6) alkyl.

22. (Currently Amended) A method according to claim 21 wherein R³ is hydroxymethyl, 1-hydroxyethyl or hydroxyethyl or 1,2-dihydroxyethyl wherein the 2-hydroxy group is optionally substituted with alkylcarbonyl or aminocarbonyl where the amino group is optionally substituted.

23. (Original) A method according to claim 17 wherein R³ is in the 3-position.

24. (Currently Amended) A method according to claim 17 wherein: A is NH, NH₃, O, CH₂, CHOH, CH(NH₂) CH(NH₂), C(Me)(OH) or CH(Me) and B is CH₂, CHOH, or CO or S; or A is CR⁶R⁷, and B CR⁸R⁹, and R⁶ and R⁸ together represent -O-, and R⁷ and R⁹ are both hydrogen, and n is 0 or 1.

25. (Currently Amended) A method according to claim 24 wherein:

A is NH, B is CO and n is 1 or 0;

A is O, B is CH₂ and n is 1 or 0;

A is CH_2 or CH_2OH , B is CH_2 , and n is 1 or 0;
A is NCH_3 , $\text{CH}(\text{NH}_3)$, $\text{CH}(\text{NH}_2)$, $\text{C}(\text{Me})(\text{OH})$ or $\text{CH}(\text{Me})$, B is CH_2 and n is 1; or
A is CR^6R^7 , and B CR^8R^9 , and R^6 and R^8 together represent $-\text{O}-$, and R^7 and R^9 are both hydrogen, and n is 1.

26. (Original) A method according to claim 17 wherein R^4 is (C_{5-10})alkyl, unsubstituted phenyl(C_{2-3})alkyl or unsubstituted phenyl(C_{3-4})alkenyl.

27. (Original) A method according to claim 17 wherein R^5 is unbranched at the α , and, where appropriate, β positions.

28. (Withdrawn and Currently amended) A compound of formula (I) as defined in claim 17 selected from:

[3R,4R]-3-Ethyl-1-hexyl-4-[3-oxo-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-hexyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-oxo-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-[3R,4R]-3-Ethyl-1-octyl-4-[3-oxo-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-octyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-decyl-4-[3-oxo-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-decyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-dodecyl-4-[3-oxo-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-dodecyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-cinnamyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-hydroxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(2-hydroxyethyl)-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-[5-phthalimidopentyloxy]quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-[5-aminopentyloxy]quinolin-4-yl)propyl]piperidine;

[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-[2-Amino--amino-2-oxo-1,1-dimethyl]ethoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-[2-hydroxy-2-methyl-propionamide]quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-aminoquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-azidoquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-hydroxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-propyloxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-(5-Phthalimidopentyloxy)quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-(5-aminopentyloxy)quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-(2-t-butylcarboxyaminoethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethenyl-1-(2-phenoxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-(4-ethylbenzyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3S,4R]-3-Ethenyl-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(2-hydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(2-acetoxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(3-hydroxypropyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(1-hydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-(2-phenylethyl)-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-(3-phenylpropyl)-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
Heptyl-4-[2-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
1-Heptyl-4-[3-(6-methoxyquinolin-4-yl)prop-2-enyl]piperidine;
1-Heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)butyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[3-(R,S)-azido-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[3-(R,S)-amino-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-(3-(R,S)4-[3-(R,S)-amino-3-(6-methoxyquinolin-4-yl)propyl]]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)butyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-(3-(R,S)4-[3-(R,S)-acetamido-3-(6-methoxyquinolin-4-yl)propyl]]piperidine;

[3R,4R]-1-Heptyl-3-(2-(R,S)-Hydroxypropyl-hydroxypropyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(1-(R,S),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-aminocarbonyloxyethyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethoxycarbonylamino carbonyloxyethyl-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-(1-(R,S)-2-(1-(R,S),2-Dihydroxyethyl)-1-heptyl-4-[3-(R,S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[(6-methoxyquinolin-4-oxy)methyl]piperidine;
[3R,4S]-3-Ethenyl-1-heptyl-4-[2-(6-methoxyquinolin-4-yl)-oxyethyl]piperidine;
1-Heptyl-4-[(6-methoxyquinolin-4-yl)oxymethyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[(6-methoxyquinolin-4-yl)methylthiomethyl]piperidine;
[3R,4R]-1-Heptyl-3-ethenyl-4-[((6-methoxyquinoline-4-yl)carbonylamo)methyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-piperidine-4-[N-(6-methoxyquinolin-4-yl)]propionamide;
[3R,4R]-3-Ethenyl-1-heptyl-piperidine-4-[N-(6-methoxyquinolin-4-yl)]propylamine;
[3R,4S]-3-Ethenyl-1-heptyl-piperidine-4-[N-(6-methoxyquinolin-4-yl)]acetamide;
[3R,4R]-3-Ethenyl-1-heptyl-piperidine-4-[N-(6-methoxyquinolin-4-yl)]ethylamine;
[3R,4S]-3-Ethenyl-1-heptyl-4-[2-(R,S)-hydroxy-2-(6-methoxyquinolin-4-yl)ethyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[2-(6-methoxyquinolin-4-yl)ethyl]piperidine;
1-Heptyl-4-[2(R,S)-hydroxy-2-(6-methoxy-4-quinolinyl)ethyl]-piperidine;
[3S,4R]-3-Ethenyl-1-heptyl-4-[2-(6-methoxyquinolin-4-yl)ethyl]piperidine;
N-(6-Methoxy-4-quinolinyl)-1-heptyl-4-piperidinecarboxamide;
(3Z)-(4R)-3-Ethylidene-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4S]-1-Cinnamyl-4-[2-(6-methoxyquinolin-4-yl)-oxyethyl]piperidine;
[3R,4R]-3-(2-Acetoxyethyl)-1-heptyl-4-[3-(6-methoxy-quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-{2-hydroxyethyloxy}quinolin-4-yl)propyl]piperidine;
[3R,4R]-3-(Ethylaminocarbonyloxyethyl)-1-heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethenyl-1-heptyl-4-[3-(R,S)-aminocarbonylamino-3-(6-methoxyquinolin-4-yl)propyl]piperidine;
[3R,4R]-3-Ethyl-1-heptyl-4-[3-(6-(4-aminobutyloxy)-quinolin-4-yl)propyl]piperidine;
[3R,4R]-1-Heptyl-3-(1-(R)- and 1-(S)-hydroxy-2-methoxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-Heptyl-3-(1-(R)-hydroxy-2-methoxyethyl)-4-[3-(6-methoxyquinolin-4-yl) propyl] piperidine;

[3R, 4R]-1-Heptyl-3-(1-(S)-hydroxy-2-methoxyethyl)-4-[3-(6-methoxyquinolin-4-yl) propyl] piperidine;

[3R, 4R]-1-Heptyl-3-(1-(R)- and 1-(S)-hydroxy-2-methylthioethyl)-4-[3-(6-methoxyquinolin-4-yl) propyl]piperidine;

[3R, 4R]-1-Heptyl-3-(1-(R)-hydroxy-2-methylthioethyl)-4-[3-(6-methoxyquinolin-4-yl) propyl]piperidine;

[3R, 4R]-1-Heptyl-3-(1-(S)-hydroxy-2-methylthioethyl)-4-[3-(6-methoxyquinolin-4-yl) propyl]piperidine;

[3R, 4R]-1-(5-Methylhexyl)-3-(1-(R)- and 1-(S)-2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-(5-Methylhexyl)-3-(1-(R),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-(5-Methylhexyl)-3-(1-(S),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-3-Ethyl-1-heptyl-4-[3-(6-(3-aminopropyl)oxyquinolin-4-yl) propyl]piperidine;

[3R, 4R]-3-Ethyl-1-heptyl-4-[3-(6-(2-aminoethyl)oxyquinolin-4-yl) propyl]piperidine;

[3R, 4R]-3-Ethyl-1-heptyl-4-[3-(6-(3-guanidinopropyl)oxyquinolin-4-yl) propyl] piperidine;

[3R, 4R]-3-Ethyl-1-heptyl-4-[3-(6-(piperidine-4-yl) methoxyquinolin-4-yl) 6-(piperidine-4-yl)methoxyquinolin-4-yl] propyl]piperidine;

[3R, 4S]-1-Heptyl-3-vinyl-4-[3-(6-methoxyquinolin-4-yl)-(R,R)-oxiran-2-ylmethyl]piperidine;

[3R, 4S]-1-Heptyl-4-[(2S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]-3-vinylpiperidine;

[3R, 4S]-1-Heptyl-3-vinyl-4-[3-(6-methoxyquinolin-4-yl)-(S,S)-oxiran-2-yl-methyl]piperidine;

[3R, 4S]-3-Ethyl-1-heptyl-4-[2-(S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4S]-1-Heptyl-4-[N-methyl-N-(6-methoxyquinolin-4-yl)aminoethyl]-3-vinylpiperidine;

[3R, 4R]-1-Heptyl-3-(1-(R,S)-hydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-Heptyl-3-(1-(R,S)-hydroxy-1-methylethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-Heptyl-3-hydroxymethyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-(6-Methylheptyl)-3-(1-(R)- and 1-(S),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R, 4R]-1-(6-Methylheptyl)-3-(1-(R),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

[3R,4R]-1-(6-Methylheptyl)-3-(1-(S),2-dihydroxyethyl)-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidine;

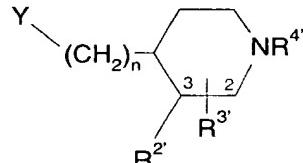
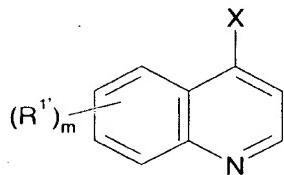
[3R, 4S]-1-Heptyl-4-[(2S)-hydroxy-3-(6-methoxyquinolin-4-yl)propyl]-3-(2-hydroxyethyl)piperidine; and

[3R, 4S]-1-Heptyl-3-aminocarbonyloxymethyl-4-[3-(6-methoxyquinolin-4-yl)propyl]piperidinepiperidine; and

[3R, 4R]-1-Heptyl-4-[3-(6-methoxyquinolin-4-yl)propyl]-3-(2-carbamoylethyl)piperidine; or a pharmaceutically acceptable acid addition salt, quaternary ammonium salt, or N-oxide derivative of any of the foregoing compounds.

29. (Withdrawn and Currently amended) A process for preparing a compound of formula (IA)(I) or a pharmaceutically acceptable derivative thereof, according to claim 18, which process comprises:

(a) reacting a compound of formula (IV) with a compound of formula (V):



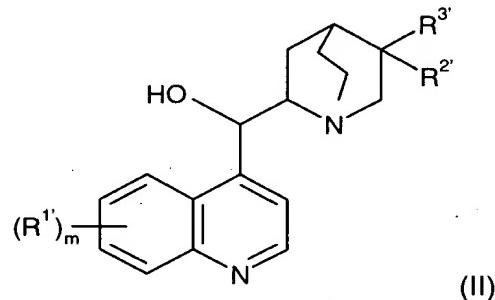
wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), and X and Y may be the following combinations:

- (i) X is M and Y is CH₂CO₂R^X
- (ii) X is CO₂RY and Y is CH₂CO₂R^X
- (iii) one of X and Y is CH=SPh₂ and the other is CHO
- (iv) X is CH₃ and Y is CHO
- (v) X is CH₃ and Y is CO₂R^X
- (vi) X is CH₂CO₂RY and Y is CO₂R^X
- (vii) X is CH=PR^Z₃ and Y is CHO
- (viii) X is CHO and Y is CH=PR^Z₃
- (ix) X is halogen and Y is CH=CH₂
- (x) one of X and Y is COW and the other is NHR^{11'} or NCO
- (xi) one of X and Y is (CH₂)_p-V and the other is (CH₂)_qNHR^{11'}, (CH₂)_qOH, (CH₂)_qSH or (CH₂)_qSCOR^X where p+q=1
- (xii) one of X and Y is CHO and the other is NHR^{11'}

(xiii) one of X and Y is OH and the other is -CH=N₂

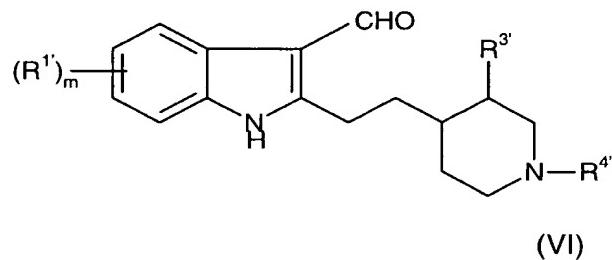
in which V and W are leaving groups, R^X and R^Y are (C₁₋₆)alkyl and R^Z is aryl or (C₁₋₆)alkyl;

(b) rearranging a compound of formula (II):



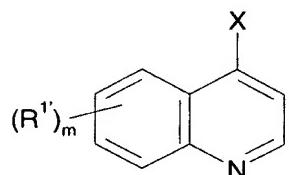
to give a compound of formula (III) which is a compound of formula (I) where R³ is in the 3-position, n is 1, A-B is COCH₂ or disubstituted epoxide and R² is H, and thereafter optionally reducing to a compound of formula (VII) which is a compound of formula (I) where n is 1, A-B is CHOCH₂ or CH₂CHOH and R² is H;

(c) photooxygenating a compound of formula (VI):

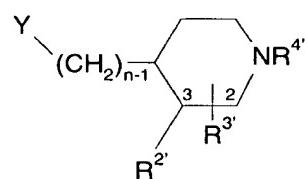


or

(d) reacting a compound of formula (IV) with a compound of formula (Vb):



(IV)



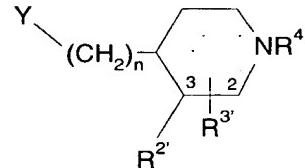
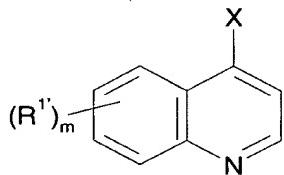
(Vb)

wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), X is CH₂NHR¹¹' and Y is CHO or COW or X is CH₂OH and Y is -CH=N₂;

in which R^{11'}, R¹, R², R³' and R⁴' are R¹¹, R¹, R², R³ and R⁴ or groups convertible thereto, and thereafter optionally or as necessary converting R^{11'}, R¹', R²', R³' and R⁴' to R¹¹, R¹, R², R³ and R⁴, converting A-B to other A-B, interconverting R¹¹, R¹, R², R³ and/or R⁴ and forming a pharmaceutically acceptable derivative thereof, wherein the pharmaceutically acceptable derivative is an acid addition salt, quaternary ammonium salt, or N-oxide.

30. (Withdrawn and Currently amended) A process for preparing a compound of formula (IB)(I), or a pharmaceutically acceptable derivative thereof, according to claim 19 which process comprises:

(a) reacting a compound of formula (IV) with a compound of formula (V):

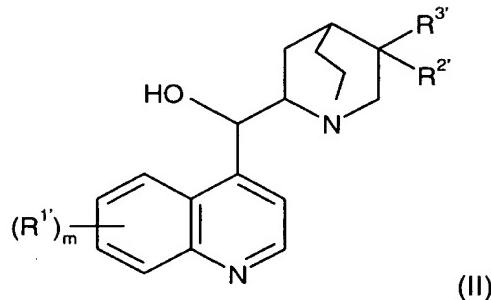


wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), and X and Y may be the following combinations:

- (i) X is M and Y is CH₂CO₂R^X
- (ii) X is CO₂RY and Y is CH₂CO₂R^X
- (iii) one of X and Y is CH=SPh₂ and the other is CHO
- (iv) X is CH₃ and Y is CHO
- (v) X is CH₃ and Y is CO₂R^X
- (vi) X is CH₂CO₂RY and Y is CO₂R^X
- (vii) X is CH=PR^Z₃ and Y is CHO
- (viii) X is CHO and Y is CH=PR^Z₃
- (ix) X is halogen and Y is CH=CH₂
- (x) one of X and Y is COW and the other is NHR^{11'} or NCO
- (xi) one of X and Y is (CH₂)_p-V and the other is (CH₂)_qNHR^{11'}, (CH₂)_qOH, (CH₂)_qSH or (CH₂)_qSCOR^X where p+q=1
- (xii) one of X and Y is CHO and the other is NHR^{11'}
- (xiii) one of X and Y is OH and the other is -CH=N₂

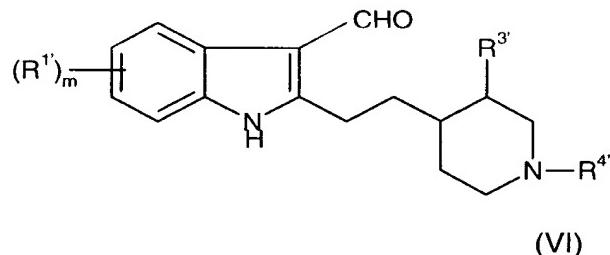
in which V and W are leaving groups, RX and RY are (C₁₋₆)alkyl and RZ is aryl or (C₁₋₆)alkyl;

(b) rearranging a compound of formula (II):



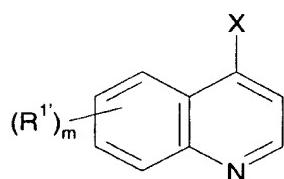
to give a compound of formula (III) which is a compound of formula (I) where R³ is in the 3-position, n is 1, A-B is COCH₂ or disubstituted epoxide and R² is H, and thereafter optionally reducing to a compound of formula (VII) which is a compound of formula (I) where n is 1, A-B is CHOCH₂ or CH₂CHOH and R² is H;

(c) photooxygenating a compound of formula (VI):

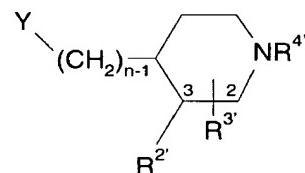


or

(d) reacting a compound of formula (IV) with a compound of formula (Vb):



(IV)



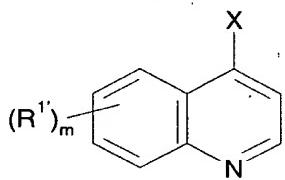
(Vb)

wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), X is CH₂NHR^{11'} and Y is CHO or COW or X is CH₂OH and Y is -CH=N₂; in which R^{11'}, R¹, R², R³' and R⁴' are R¹¹, R¹, R², R³ and R⁴ or groups convertible thereto, and thereafter optionally or as necessary converting R^{11'}, R¹', R²', R³' and R⁴'

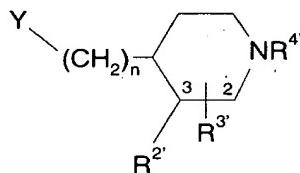
to R^{11'}, R¹, R², R³ and R⁴, converting A-B to other A-B, interconverting R¹¹, R¹, R², R³ and/or R⁴ and forming a pharmaceutically acceptable derivative thereof, wherein the pharmaceutically acceptable derivative is an acid addition salt, quaternary ammonium salt, or N-oxide.

31. (Withdrawn and Currently amended) A process for preparing a compound of formula (I), or a pharmaceutically acceptable derivative thereof, according to claim 28 which process comprises:

(a) reacting a compound of formula (IV) with a compound of formula (V):



(IV)



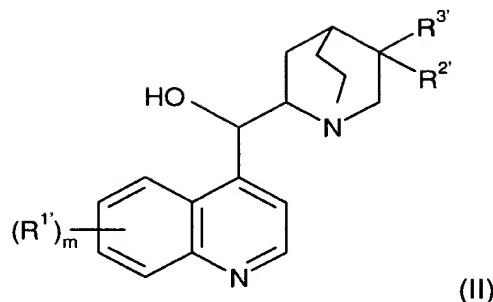
(V)

wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), and X and Y may be the following combinations:

- (i) X is M and Y is CH₂CO₂R^X
- (ii) X is CO₂RY and Y is CH₂CO₂R^X
- (iii) one of X and Y is CH=SPh₂ and the other is CHO
- (iv) X is CH₃ and Y is CHO
- (v) X is CH₃ and Y is CO₂R^X
- (vi) X is CH₂CO₂RY and Y is CO₂R^X
- (vii) X is CH=PR^Z₃ and Y is CHO
- (viii) X is CHO and Y is CH=PR^Z₃
- (ix) X is halogen and Y is CH=CH₂
- (x) one of X and Y is COW and the other is NHR^{11'} or NCO
- (xi) one of X and Y is (CH₂)_p-V and the other is (CH₂)_qNHR^{11'}, (CH₂)_qOH, (CH₂)_qSH or (CH₂)_qSCOR^X where p+q=1
- (xii) one of X and Y is CHO and the other is NHR^{11'}
- (xiii) one of X and Y is OH and the other is -CH=N₂

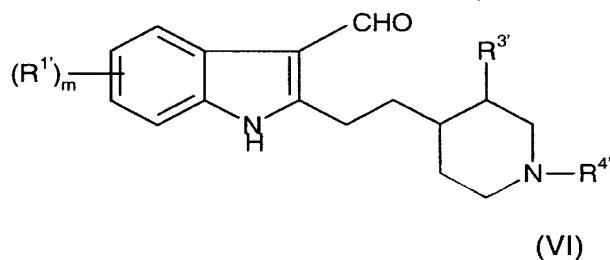
in which V and W are leaving groups, R^X and R^Y are (C₁₋₆)alkyl and R^Z is aryl or (C₁₋₆)alkyl;

(b) rearranging a compound of formula (II):



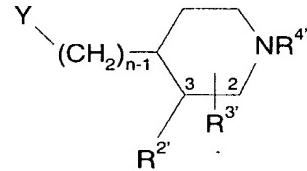
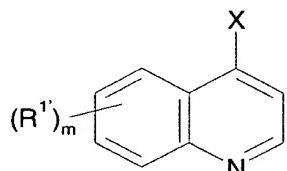
to give a compound of formula (III) which is a compound of formula (I) where R³ is in the 3-position, n is 1, A-B is COCH₂ or disubstituted epoxide and R² is H, and thereafter optionally reducing to a compound of formula (VII) which is a compound of formula (I) where n is 1; A-B is CHOCH₂ or CH₂CHOH and R² is H;

(c) photooxygenating a compound of formula (VI):



or

(d) reacting a compound of formula (IV) with a compound of formula (Vb):



wherein m, n, R¹, R², R³ and R⁴ are as defined in formula (I), X is CH₂NHR¹¹' and Y is CHO or COW or X is CH₂OH and Y is -CH=N₂; in which R¹¹', R¹', R²', R³' and R⁴' are R¹¹, R¹, R², R³ and R⁴ or groups convertible thereto, and thereafter optionally or as necessary converting R¹¹', R¹', R²', R³' and R⁴' to R¹¹, R¹, R², R³ and R⁴, converting A-B to other A-B, interconverting R¹¹, R¹, R², R³ and/or R⁴ and forming a pharmaceutically acceptable derivative thereof, wherein the

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pharmaceutically acceptable derivative is an acid addition salt, quaternary ammonium salt, or N-oxide.

32. (Withdrawn and Currently amended) A pharmaceutical composition comprising a compound or derivative according to claim 18, and a pharmaceutically acceptable carrier.

33. (Withdrawn and Currently amended) A pharmaceutical composition comprising a compound or derivative according to claim 19, and a pharmaceutically acceptable carrier.

34. (Cancelled)